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EXAMINER

PHAM, THIERRY L

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 11/25/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/507,022

Applicant(s)

ASCHENBRENNER ET AL.

Examiner

Thierry L Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claimed invention is a computer related invention. The Computer-Implemented Invention Guidelines issued by the U.S. Patent and Trademark Office describe the procedures for examining such inventions. The first step is to determine whether the invention as defined by the claims falls within one of the three following categories of unpatentable subject matter: (1) Functional descriptive material such as a data structure *per se* or a computer program *per se*, (2) Non-functional descriptive material such as music, literary works or pure data, embodied on a computer readable medium; or (3) A natural phenomenon such as energy or magnetism. The invention as defined by the claims is not a natural phenomenon or pure data, however, it is a data structure *per se*, which does not mount/store on any computer-readable medium; therefore, these claims are rejected for non-statutory basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-6, 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Zandee et al (U.S. Patent No. 5872895).

2. Regarding claim 1, Zandee discloses a data structure (Fig. 2, col. 2, lines 50-52) disposed in a document datastream (the ColorSync Utilities are a set of routines and data structures that enable computer system to match colors and communicate color information between various devices, col. 4, lines 6-15) for providing object level management using tagged secondary resources (color profile matching, Fig. 3A and 3B, col. 4, lines 38-67 and col. 7, lines 10-20) the data structure including at least one mapping structure (Fig. 3A and 3B, i.e. gray tone reproduction, col. 4, lines 61-66) for identifying rendering control data as a secondary resource and at least one include object structure (text, oval, region, polygon, PixMaps, col. 2, lines 25-38) for referencing the rendering control data.

3. Regarding claim 2, Zandee further discloses a data structure, wherein a plurality of mapping structures (gray tone reproduction curve information and the tristimulus values for red, green, and blue, Fig. 3A & 3B, col. 4, lines 46-66) are provided.

4. Regarding claim 3, Zandee further discloses a data structure, wherein a plurality of

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include object structures (Fig. 3A and 3B, col. 4, lines 38-66) to an object reference the identified rendering control data (color profile matching, col. 4, lines 38-67 and col. 7, lines 10-20).

5. Regarding claim 4, Zandee further discloses a data structure, wherein a plurality of include object structures (Fig. 3A and 3B, col. 4, lines 30-66) to an object are provided for referencing identified rendering control data (color profile matching, col. 4, lines 38-67 and col. 7, lines 10-20).

6. Regarding claim 5, Zandee further discloses a data structure, wherein the rendering control data comprises source calibration parameters (device's color space, tonal reproduction curves, col. 4, lines 30-45).

7. Regarding claim 6, Zandee further discloses a data structure, wherein the source calibration parameters comprise a color profile (color matching, col. 4, lines 46-53).

8. Regarding claim 8, Zandee further discloses a data structure, wherein the rendering control data comprises text rendering parameters (documents, col. 6, lines 50-60).

9. Regarding claim 9, Zandee further discloses a data structure, wherein the rendering control data comprises vector graphic rendering parameters (photographic rendering intent, col. 5, lines 5-19).

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10. Regarding claim 10, Zandee further discloses a data structure, wherein the rendering control data comprises image rendering parameters (matching color with a photographic rendering intent means the colors are matched as close as possible to the original colors while preserving the overall tone of the image, col. 5, lines 5-20).

11. Claims 11-13, 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Zandee et al (U.S. Patent No. 5872895).

12. Regarding claim 11, Zandee discloses a method for providing object level management using tagged secondary resources, comprising:

- (1) mapping rendering control data (Fig. 3A & 3B, col. 4, lines 61-66) for at least one object as a secondary resource (color matching, col. 4, line 46-53);
- (2) including at least one include structures (Fig. 2) for the at least one object (text, col. 3, lines 12-24) that references the mapped rendering control data;
- (3) printing a page (col. 3, lines 62-63, and see printer on Fig. 1) containing the at least one object (image, col. 3, line 63), the at least one object on the page being rendered according to the mapped rendering control data for the at least one object.

13. Regarding claim 12, Zandee discloses a method for providing object level management using tagged secondary resources, wherein the rendering control data comprises source calibration parameters (device's color space, tonal reproduction curves, col. 4, lines 30-45).

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14. Regarding claim 13, Zandee discloses a method for providing object level management using tagged secondary resources, wherein the source calibration parameters comprise a color profile (color matching, col. 4, lines 46-53).

15. Regarding claim 15, Zandee discloses a method for providing object level management using tagged secondary resources, wherein the rendering control data comprises text rendering parameters (documents, col. 6, lines 50-60).

16. Regarding claim 16, Zandee discloses a method for providing object level management using tagged secondary resources, wherein the rendering control data comprises vector graphic rendering parameters (photographic rendering intent, col. 5, lines 5-19).

17. Regarding claim 17, Zandee discloses a method for providing object level management using tagged secondary resources, wherein the rendering control data comprises image rendering parameters (matching color with a photographic rendering intent means the colors are matched as close as possible to the original colors while preserving the overall tone of the image, col. 5, lines 5-20).

18. Claims 18-20, 22-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Zandee et al (U.S. Patent No. 5872895).

19. Regarding claim 18, Zandee discloses a method for providing object level management

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for a page using tagged secondary resources, comprising:

- (1) determining (col. 5, lines 39-45) whether rendering control data for an object is mapped;
- (2) making the rendering control data for the object available in the printer (device's color space, tonal reproduction curves, col. 4, lines 30-45 and col. 8, lines 32-52).
- (3) including the object that references the mapped rendering control data for the object (Fig. 3A & 3B, col. 4, lines 46-66).
- (4) determining whether additional rendering control data is to be mapped (Fig. 3A & 3B, col. 4, lines 61-66 and col. 7, lines 2-7);
- (5) making additional rendering control data for additional objects available in the printer (printer, Fig. 1) and including the additional objects that reference the additionally mapped rendering control data for the additional objects when it is determined that additional rendering control data is to be mapped (Fig. 3A & 3B, col. 4, lines 6-66);
- (6) rendering objects in page (images and documents, col. 5, lines 5-37) according to mapped rendering control data for the objects; and
- (7) printing the page (prints by the printer, Fig. 1, col. 3, lines 62-63).

20. Regarding claim 19, Zandee discloses a method for providing object level management for a page using tagged secondary resources, wherein the rendering control data comprises source calibration parameters (device's color space, tonal reproduction curves, col. 4, lines 30-45).

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21. Regarding claim 20, Zandee discloses a method for providing object level management for a page using tagged secondary resources, wherein the source calibration parameters comprise a color profile (color matching, col. 4, lines 46-53).

22. Regarding claim 22, Zandee discloses a method for providing object level management for a page using tagged secondary resources, wherein the rendering control data comprises text rendering parameters (documents, col. 6, lines 50-60).

23. Regarding claim 23, Zandee discloses a method for providing object level management for a page using tagged secondary resources, wherein the rendering control data comprises vector graphic rendering parameters (photographic rendering intent, col. 5, lines 5-19).

24. Regarding claim 24, Zandee discloses a method for providing object level management for a page using tagged secondary resources, wherein the rendering control data comprises image rendering parameters (matching color with a photographic rendering intent means the colors are matched as close as possible to the original colors while preserving the overall tone of the image, col. 5, lines 5-20).

25. Claims 34-36, 38-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Zandee et al (U.S. Patent No. 5872895).

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Regarding claim 34, Zandee discloses an article of manufacture comprising a program storage medium (temporary disk file, col. 3, lines 53-55) readable by a computer, the medium tangibly embodying one or more programs of instructions executable by the computer to perform a method for providing object level management for a page, the method comprising:

- (1) mapping rendering control data (Fig. 3A & 3B, col. col. 4, lines 61-66) for at least one object as a secondary resource (color matching, col. 4, line 46-53);
- (2) including at least one include structures (Fig. 2) for the at least one object (text, col. 3, lines 12-24) that references the mapped rendering control data;
- (3) printing a page (col. 3, lines 62-63, and see printer on Fig. 1) containing the at least one object (image, col. 3, line 63), the at least one object on the page being rendered according to the mapped rendering control data for the at least one object.

26. Regarding claim 35, Zandee further discloses the article of manufacture of claim 34, wherein the rendering control data comprises source calibration parameters (device's color space, tonal reproduction curves, col. 4, lines 30-45).

27. Regarding claim 36, Zandee further discloses the article of manufacture of claim 35, wherein the source calibration parameters comprise a color profile (color matching, col. 4, lines 46-53).

28. Regarding claim 38, Zandee further discloses the article of manufacture of claim 34, wherein the rendering control data comprises text rendering parameters (documents, col. 6, lines

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50-60).

29. Regarding claim 39, Zandee further discloses the article of manufacture of claim 34, wherein the rendering control data comprises vector graphic rendering parameters (photographic rendering intent, col. 5, lines 5-19).

30. Regarding claim 40, Zandee further discloses the article of manufacture of claim 34, wherein the rendering control data comprises image rendering parameters (matching color with a photographic rendering intent means the colors are matched as close as possible to the original colors while preserving the overall tone of the image, col. 5, lines 5-20).

31. Claims 41-43, 45-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Zandee et al (U.S. Patent No. 5872895).

32. Regarding claim 41, Zandee discloses an article of manufacture comprising a program storage medium (temporary disk file, col. 3, lines 53-55) readable by a computer, the medium tangibly embodying one or more programs of instructions executable by the computer to perform a method for providing object level management for a page, the method comprising:

- (1) determining (col. 5, lines 39-45) whether rendering control data for an object is mapped;
- (2) making the rendering control data for the object available in the printer (device's color space, tonal reproduction curves, col. 4, lines 30-45 and col. 8, lines 32-52).

(3) including the object that references the mapped rendering control data for the object (Fig. 3A & 3B, col. 4, lines 46-66).

(4) determining whether additional rendering control data is to be mapped (Fig. 3A & 3B, col. 4, lines 61-66 and col. 7, lines 2-7);

(5) making additional rendering control data for additional objects available in the printer (printer, Fig. 1) and including the additional objects that reference the additionally mapped rendering control data for the additional objects when it is determined that additional rendering control data is to be mapped (Fig. 3A & 3B, col. 4, lines 6-66);

(6) rendering objects in page (images and documents, col. 5, lines 5-37) according to mapped rendering control data for the objects; and

(7) printing the page (prints by the printer, Fig. 1, col. 3, lines 62-63).

33. Regarding claim 42, Zandee further discloses the article of manufacture of claim 41, wherein the rendering control data comprises source calibration parameters (device's color space, tonal reproduction curves, col. 4, lines 30-45).

34. Regarding claim 43, Zandee further discloses the article of manufacture of claim 42, wherein the source calibration parameters comprise a color profile (color matching, col. 4, lines 46-53).

35. Regarding claim 45, Zandee further discloses the article of manufacture of claim 41, wherein the rendering control data comprises text rendering parameters (documents, col. 6, lines

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50-60).

36. Regarding claim 46, Zandee further discloses the article of manufacture of claim 41, wherein the rendering control data comprises vector graphic rendering parameters (photographic rendering intent, col. 5, lines 5-19).

37. Regarding claim 47, Zandee further discloses the article of manufacture of claim 41, wherein the rendering control data comprises image rendering parameters (matching color with a photographic rendering intent means the colors are matched as close as possible to the original colors while preserving the overall tone of the image, col. 5, lines 5-20).

38. Claims 25-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al (U.S. Patent No. 5704021).

39. Regarding claim 25, Smith discloses a system for providing object level management for a page, comprising:

a print server (host computer, col. 3, lines 10-17) for receiving an application datastream defining a document containing objects for printing and creating a printer datastream that is specific to a destination printer engine (inkjet printer, col. 6, lines 31-35) in order to integrate with the printer's specific capabilities and command set; and

a control unit (printer's control, col. 6, lines 15-23) for cache objects, the control unit further comprising a raster image processor (raster printer, col. 3, lines 60-67) for rendering

object (halftoning, col. 8, Table 2) according to commands provided by the print server in the printer datastream; and

wherein the application datastream maps at least one of rendering control data (halftoning, Fig. 6, col. 5, lines 51-67) as a secondary resource and includes at least one object that references the at least one mapped set of rendering control data based upon a data structure (raster data, col. 3, lines 1-9) in the application datastream that tags rendering control to objects.

40. Regarding claim 26, Smith further discloses the system of claim 25, wherein the secondary resource is shipped resident (ink, col. 6, lines 36-42) in the printer.

41. Regarding claim 27, Smith further discloses the system of claim 25, wherein the secondary resource (color control rendering options, col. 5, lines 51-67) is downloaded by the print server based upon the mapping when the secondary resource is not resident.

42. Regarding claim 28, Smith further discloses the system of claim 25, wherein the rendering control data comprises source calibration parameters (Calibrate screen, Fig. 5).

43. Regarding claim 29, Smith further discloses the system of claim 28, wherein the source calibration parameters comprise a color profile (Print Color Control, Fig. 5).

44. Regarding claim 30, Smith further discloses the system of claim 28, wherein the source calibration parameters comprise halftoning parameters (halftoning, Fig. 5).

45. Regarding claim 31, Smith further discloses the system of claim 25, wherein the rendering control data comprises text rendering parameters (color text, Fig. 7, col. 4, lines 28-37).

46. Regarding claim 32, Smith further discloses the system of claim 25, wherein the rendering control data comprises vector graphic rendering parameters (color photo images, Fig. 7 and color vector space, Fig. 9, col. 3, lines 1-10).

47. Regarding claim 33, Smith further discloses the system of claim 25, wherein the rendering control data comprises image rendering parameters (print photo as halftone color image, Fig. 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

48. Claims 7, 14, 21, 37, 44 are rejected under 103(a) as being unpatentable over Zandee et al (U.S. Patent No. 5872895) as applied to claim 12 above, and view of Smith et al (U.S. Patent No. 5704021).

49. Regarding claim 7, Zandee discloses a system for providing object level management with rendering control data, but does not include the source calibration parameters comprise halftoning parameters.

Smith, in the same field of endeavor for print rendering control data, discloses the source calibration parameters comprise halftoning parameters (Fig. 5 & Fig. 7, col. 3, lines 1-9 and col. 10, lines 38-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Zandee's print rendering intent control data as per teachings of Smith because of the following reasons: (1) to provide optimum color matching and to increased flexibility (Zandee, col. 6, lines 50-61); thereby, increasing the quality of printed images; (2) to provide best quality output image (Smith, col. 11, lines 20-46).

It would have been obvious to combine Smith with Zandee to obtain the invention as specified in claim 7.

50. Regarding claims 14, 21, 37, and 44 recite the limitations that are included in claim 7; therefore, claims 14, 21, 37, and 44 are rejected for the same rationale/basis as described in claim 7 above.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L Pham whose telephone number is (703) 305-1897. The examiner can normally be reached on M-F (8:30 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on (703)308-7452. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Thierry L. Pham


October 23, 2003



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